

A new species of *Stenoninereis* (Polychaeta: Nereididae) from the Gulf of Mexico

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Abstract.—The genus *Stenoninereis* is newly recorded from Mexican waters. The only formerly known species of the genus, *Stenoninereis martini* Wesenberg-Lund, 1958, is recorded from Laguna de Terminos, State of Campeche, Mexico, where it was found associated with mangrove roots. *Stenoninereis tecolutlensis* n. sp. was collected in Tecolutla, State of Veracruz, under oyster shells attached to mangrove roots in an estuarine zone. Both specimens are described and illustrated, and a key is provided in order to distinguish between them.

The genus *Stenoninereis* was established in 1958 by Wesenberg-Lund for those species with dorsal cirri formed by elongate basal cirrophores and subulate distal cirrostyles. Up until now, only the type species (*S. martini* and synonym *Nicon lackeyi* Hartman, 1958) was known, from localities in the Great Caribbean region, western Gulf of Mexico, Cuba and North Carolina (Wesenberg-Lund 1958, Pettibone 1971, Williams et al. 1976, Hartmann-Schröder 1977, Gardiner & Wilson 1979).

The material analyzed for this study was collected in Laguna de Terminos, State of Campeche from sediment associated with mangrove roots, and in Estero de Larios, Tecolutla, State of Veracruz under oyster shells attached to mangrove roots. The specimens were fixed with formalin, preserved in 70% alcohol and stained with a methyl blue solution to highlight some important features. The type material is deposited in the Smithsonian Institution (USNM, Washington, D.C., U.S.A.) as well as in the polychaete collections of the Instituto de Ciencias del Mar y Limnología

(CPICML-UNAM) and Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León (UANL), both in Mexico. A diagnosis of *S. martini* is given, in order to complement the original description and to compare it to the new species herein described.

Stenoninereis Wesenberg-Lund, 1958

Type species.—*Stenoninereis martini* Wesenberg-Lund, 1958.

Diagnosis.—Prostomium small, rounded and distally notched, with paired frontal antennae, biarticulate palps and two pairs of eyes, anterior pair crescent-shaped, and posterior pair rounded. Four pairs of tentacular cirri. Pharynx with paired jaws without paragnaths or papillae. First two pairs of parapodia subbiramous. Dorsal cirri with long basal cirrophores and short cirrostyles. Biramous parapodia with notopodia bilobed, with lower acicular lobes and upper ligules reduced in posterior parapodia; neuropodia with bluntly conical acicular lobes in anterior region, becoming more elongate in middle setigers, and shorter, more point-

ed in posterior region. Ventral cirri cirriform. Notosetae homogomph and sesquigomph spinigers. Neurosetae heterogomph spinigers, sesquigomph and heterogomph falcigers with thin blades. Pygidium with a pair of expanded lobes and a pair of anal cirri.

Stenoninereis martini Wesenberg-Lund,
1958
Fig. 1

Stenoninereis martini Wesenberg-Lund,
1958: 9, figs. 2–4; Pettibone, 1971: 39,
figs. 23, 24; Williams, et al., 1976: 83;
Hartmann-Schröder, 1977; Gardiner &
Wilson, 1979: 165 fig. 2a–h.

Nicon lackeyi Hartman, 1958: 263, figs. 1–5.

Material examined.—México, San Julián, Laguna de Terminos, Campeche, 1/Mar/1984 (18 specimens) (CPICML-UNAM POH-39-39).

Description.—Best preserved specimen complete (33 setigers), olive-green, with small pigmented dots, on the most dorsal part of the body, 6 mm long and 1 mm wide including parapodia. Prostomium pentagonal, slightly notched frontally. Two pairs of eyes: anterior pair crescent shaped, posterior pair small and rounded. Frontal antennae cirriform and not longer than distal margin of palps. Palps globular, biarticulate with elongate conical palpostyles. Peristomium slender, with four pairs of tentacular cirri, anterior dorsal pair reaching up to setiger 6. Pharynx with one pair of jaws armed with 9 teeth.

First two parapodia subbiramous; notopodia reduced to small notoacacula. Following parapodia biramous; anterior ones (Fig. 1A) with long dorsal cirri consisting of elongate basal cirrophore and short piriform cirrostyle, which becomes longer towards the body end (Fig. 1B, C). Notopodia trilobate, superior lobe short and digitiform, inferior lobe subulate, with small presetal lobe at base of upper lobe. Superior notopodial lobes reducing in size in posterior setigers (Fig. 1C). Neuropodia with bluntly

conical acicular lobe in anterior region (Fig. 1A), becoming more elongate in middle setigers (Fig. 1B) and shorter, more pointed in posterior region (Fig. 1C).

Supracicular notosetae are sesquigomph spinigers, infra-acicular notosetae are homogomph spinigers; both with slender appendix, serrated on the inner edge. Supracicular neurosetae are heterogomph and sesquigomph spinigers; infracicular ones are sesquigomph spinigers: one heterogomph spiniger with a short blade strongly serrated on at least three quarters of its length on its inner margin (Fig. 1D); heterogomph falcigers with long blade, spinulose, distally hooked. Blades of the most ventral heterogomph falcigers are one fourth of the length of the superior ones.

Pygidium subterminal, with pair of lateral flattened, wide lobes, and pair of long anal cirri. Anal opening ventral.

Distribution.—*Stenoninereis martini* has been reported from the Greater Caribbean region (type locality: San Martin Island; and Sarasota, Florida), western Gulf of Mexico (Texas), Cuba, North Carolina, and herein from Laguna de Terminos, Campeche, Mexico, where it was collected in soft bottoms associated with mangrove roots.

Stenoninereis tecolutlensis, new species
Fig. 2

Material examined.—Mexico, Estero de Larios, Tecolutla, Veracruz, 19/Nov/1994 (Holotype: USNM-174870, and 2 paratypes: UANL-3980 and CPICML-UNAM POH-39-002).

Description.—Holotype complete, green-yellowish, 15 mm long and 2 mm wide with 49 setigers. Palps and eyes contour-pigmented; peristomium and following three setigers with transverse dark stripe, less conspicuous on following segments.

Prostomium rounded, deeply incised frontally, with a pair of small, cirriform frontal antennae, longer than palps. Two pairs of eyes: anterior pair crescent-shaped, posterior pair rounded. Biarticulate palps

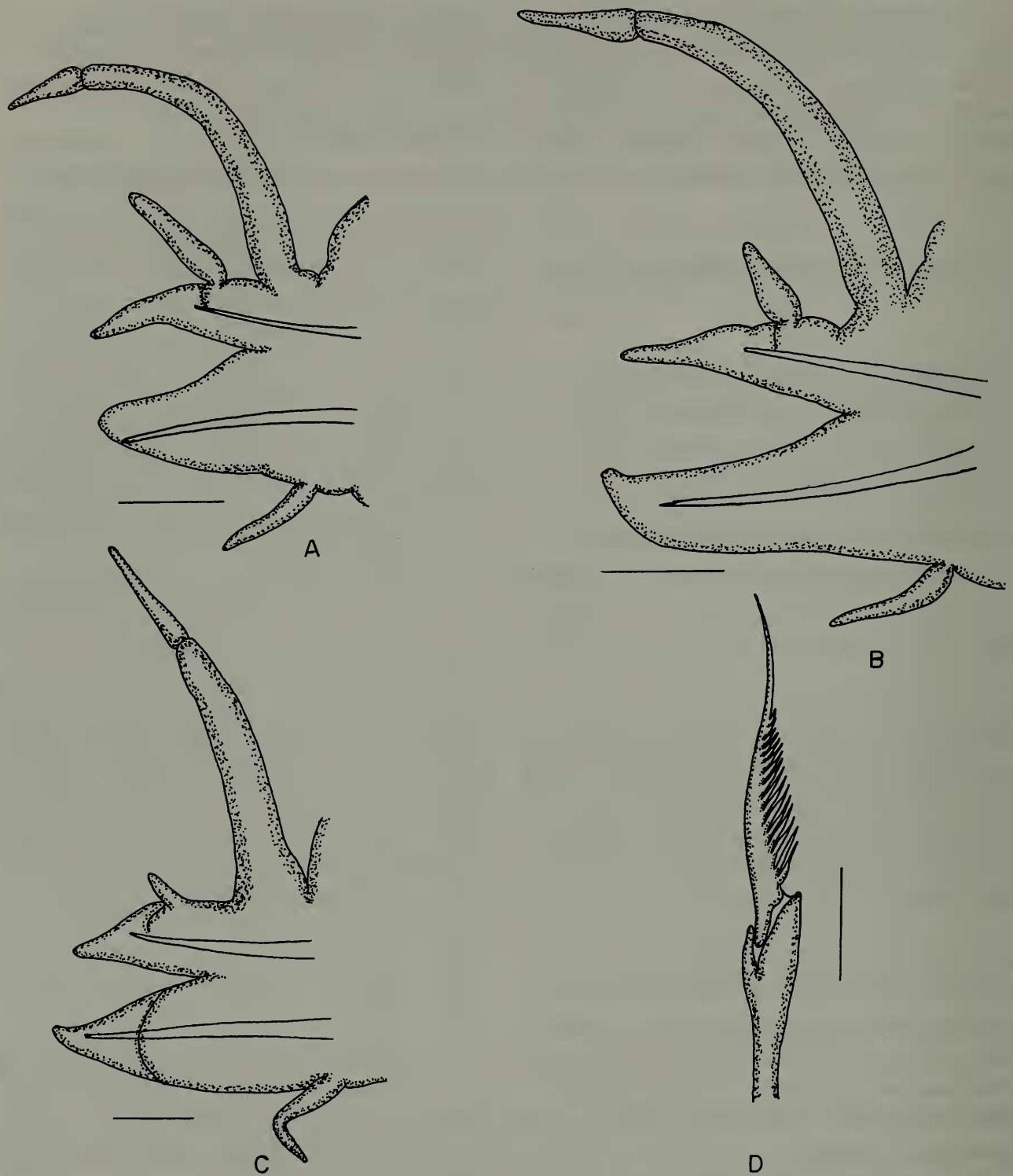


Fig. 1. *Stenoninereis martini*. A. 6th parapodium; B. 18th parapodium; C. 28th parapodium; D. heterogomph spiniger from parapodium of middle segments. (A, B, C anterior view, setae omitted). Scale: A–C = 60 μm ; D = 8 μm .

with globular palpophores and conical palpostyles. Peristomium narrow, with four pairs of tentacular cirri, posterodorsal pair longest reaching setiger 12; anterodorsal pair laterally expanded (Fig. 2A). Pharynx with a pair of jaws armed with five minute teeth.

First two parapodia uniramous, the following biramous. In anterior and middle parapodia (Fig. 2 B–C) two long and slender lobes form notopodium, superior one being shorter. Posterior parapodia bearing only an acicular lobe (Fig. 2D). Cirrophores of the dorsal cirri in anterior and middle

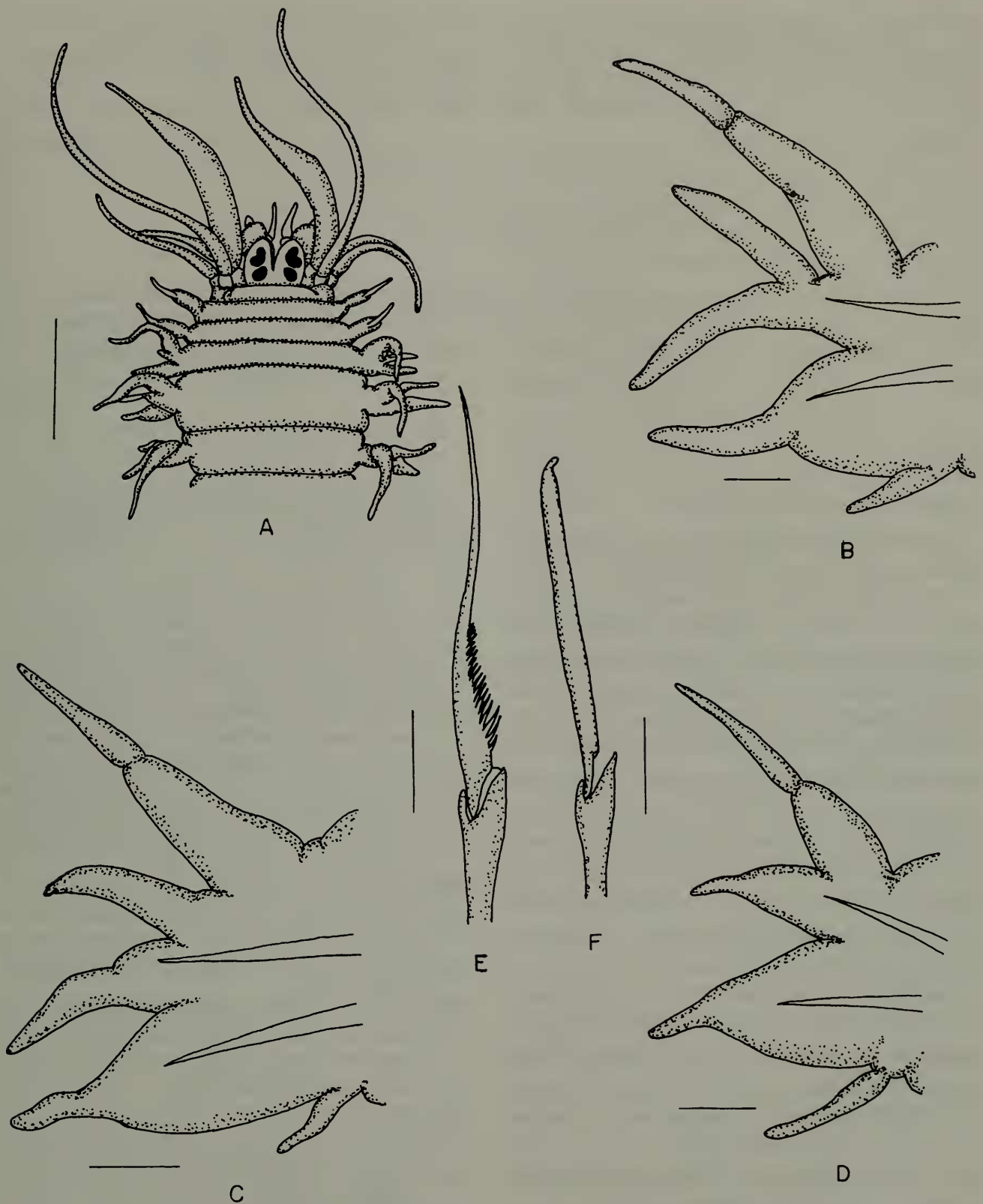


Fig. 2. *Stenoninereis tecolutlensis* new species A. Anterior end, dorsal view; B. 10th parapodium; C. 25th parapodium; D. Posterior parapodium; E. Neuropodial infracircular heterogomph spiniger from parapodium of middle segments; F. Neuropodial infracircular heterogomph falciger from parapodia of middle segments. (B, C, D: anterior view, setae omitted). Scale: A = 0.5 mm; B - D = 60 μ m; E, F = 8 μ m.

segments 1.5 times longer than the cirrostyles; on posterior parapodia cirrostyle 1.5 times longer than the cirrophore, but the cirrophore is basally stouter. Ventral cirri longer on posterior parapodia.

Setation is similar throughout the body. Notosetae are homogomph spinigers in supracicular position and two sesquigomph spinigers in subacicular position. Supracicular neurosetae are heterogomph and sesquigomph falcigers with smoothly serrated blades. Infracicular ones in dorsal position with one pair of heterogomph spinigers strongly denticulate (Fig. 2E), and heterogomph falcigers with elongate terminal hooked blades (Fig. 2F); inferior ones one third of superior ones' length.

Anus terminal, with two flat winglike expansions, and a pair of anal cirri.

Geographical distribution.—Known only from Estero de Larios, Tecolutla, Veracruz, Mexico, where it was collected under oyster shells attached to mangrove roots in very shallow estuarine waters.

Etymology.—*Stenoninereis tecolutlensis* is named after the type locality, Tecolutla, Veracruz.

Remarks.—The genus *Stenoninereis* was erected by Wesenberg-Lund (1958) for only one species: *S. martini*. *S. tecolutlensis* differs from the type species in the shape of the prostomium and the size of the eyes: in *S. martini*, the prostomium is rounded with small eyes while in *S. tecolutlensis* the prostomium is deeply incised frontally, with large eyes. They further differ in the shape and distribution of the supracicular double notopodial lobe (short and present to the end of the body in *S. martini*, long and missing on posterior parapodia in *S. tecolutlensis*); the relative length of the cirrophore and the cirrostyle, the number and size of teeth on the jaws, (nine in *S. martini* and five minute teeth in *S. tecolutlensis*), the difference in size and area covered by the

denticulation of the heterogomph spinigers, *S. martini* have homogomph spinigers in infracicular position, while *S. tecolutlensis* have sesquigomph spinigers; and the relative size of the ventral cirri on posterior parapodia (short in *S. martini* and longer in *S. tecolutlensis*).

Key to *Stenoninereis*

1. Prostomium rounded, supracicular double notopodial lobes short, present throughout body, notopodium with homogomph spinigers in infracicular position *S. martini*
- Prostomium deeply incised frontally, supracicular double notopodial lobes missing on posterior parapodia, notopodium with sesquigomph spinigers in infracicular position *S. tecolutlensis*

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